



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/576,188	05/23/2000	Etsuji Tagami	10873.533US01	3963

23552 7590 11/06/2002

MERCHANT & GOULD PC  
P.O. BOX 2903  
MINNEAPOLIS, MN 55402-0903

EXAMINER

HODGES, MATTHEW P

ART UNIT PAPER NUMBER

2879

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/576,188

Applicant(s)

TAGAMI ET AL.

Examiner

Matt P Hodges

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2879

## **DETAILED ACTION**

### ***Response to Amendment***

The Amendment, filed on 8/12/2002, has been entered and acknowledged by the Examiner.

The new title has been entered; objection to the title has been removed.

Addition of claim 5 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguro et al. (US 4,961,021) in view of Kawabata (US 4,876,479).

Regarding claims 1 and 4, Oguro discloses (see figure 6) a cathode-ray tube (32) having an electron gun (43), an electron beam (32), a display screen (33), deflection coils (34-35), a correction circuit (40), and a convergence yoke (40). (Column 3 lines 47-61). Oguro further discloses (see figure 11) the convergence yoke having vertical deflection coils (1a, 1a', 1b, 1b', 1c, 1c'), horizontal deflection coils (2b, 2b', 2c, 2c'), and input terminals (3, 3', 4, 4') that connect the coils to the correction circuit. (Column 7 lines 43-45). The vertical deflection coils generate a magnetic field that provides a preliminary deflection force for the electron beams that will decrease the pincushion effect. Oguro does not appear to explicitly specify a correction

Art Unit: 2879

circuit designed to vary with distance providing a stronger correction at the peripheral of the screen. In the same field of cathode-ray tubes, Kawabata discloses a cathode-ray tube as above (see figure 1) but further teaches the use of a variable correction circuit that varies as  $x^2y$  generating a stronger field at the peripheral of the screen and little or no correction at the center of the screen. (Column 4 lines 54-64). Further Kawabata discloses the use of diodes to specify which coil the circuit drives. (Column 12 lines 33-40). The correction circuit described in Kawabata more accurately maps the non-linear pincushion distortion and thus allows for a better adjustment to the peripheral portion of the screen. Inclusion of this correction circuit to drive the vertical deflection coils described by Oguro provides a preliminary deflection force that varies with distance as described by the applicant. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the correction circuit disclosed by Kawabata into the convergence yoke disclosed by Oguro to more accurately correct the pincushion distortion.

The recitation of the preliminary deflection force being greater at the middle portion of the screen relative to the peripheral portion of the screen has not been given patentable weight because is considered an intended used recitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

Regarding claims 2 and 3, the vertical correction coils disclosed by Oguro are located to the sides of the neck portion and are disposed with an opposite polarity. (Column 7 lines 54-64).

Art Unit: 2879

Regarding claim 5, Oguro specifies (see figure 6) that the correction coils (39) are located on the electron gun side of the deflection yoke (35) thus the preliminary deflection force is applied before the primary deflection magnetic field. (Column 3 lines 53-65).

### ***Response to Arguments***

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

In response to the Applicant's arguments that Oguro in view of Kawabata does not teach a correction coil for producing a preliminary deflection force that varies with distance from the center of the screen, the Examiner disagrees. Oguro teaches a correction coil that is further modified by the correction circuit disclosed by Kawabata enabling the preliminary deflection force to be modified by both vertical and horizontal distance. Examiner agrees however that the system described does not serve to increase the preliminary deflection force at the middle portion with respect to the periphery portion. However Examiner has further specified that this constitutes an intended use statement and thus has not been given patentable weight. Examiner has further clarified the rejection of claim 1 under 35 U.S.C. § 103(a), see rejection above. Since the rejection has been modified and expanded, this action is made non-final.


### ***Contact Information***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt P Hodges whose telephone number is (703) 305-4015. The examiner can normally be reached on 7:30 AM to 4:00 PM M-F.

Art Unit: 2879

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

mph   
November 4, 2002

  
**NIMESHKUMAR D. PATEL**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**